

FEB 12 1993

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)	ET Docket No. <u>92-9</u>
)	
Redevelopment of Spectrum to)	RM-7981
Encourage Innovation in the)	RM-8004
Use of New Telecommunications)	
Technologies)	

AMERITECH'S REPLY COMMENTS ON PROPOSED
SPECTRUM TRANSITION RULES

As many of the comments on the proposed spectrum transition rules acknowledge, spectrum sharing between PCS providers and incumbent fixed microwave users is an issue the Commission must consider carefully in its formulation of rules governing spectrum transition. Spectrum sharing for lengthy periods of time is not a panacea to the problems of relocating incumbent fixed microwave operators to make room for PCS and other emerging technologies. Yet for a relatively short transition period and for low power PCS applications, spectrum sharing may be a feasible solution to relocation problems.

Those parties advocating a general policy of sharing spectrum for long periods of time¹ ignore several facts.

¹See e.g., Comments of Northwest Iowa Power Cooperative, p. 5.

First, spectrum sharing for high power applications² has never been effectively demonstrated. Current proposals, including the Ameritech proposal, of spectrum sharing techniques assume only relatively low power levels.³

Interference problems that can be created by spectrum sharing are also often ignored by its proponents.⁴ The interference problem of spectrum sharing is most acute in densely-populated urban areas (those areas in which demand for PCS and other advanced wireless services is likely to develop most quickly). Existing 1.9 GHz microwave traffic in many urban areas is already extremely congested. (See Attachments 1 and 2, an Ameritech study of 1.9 GHz microwave paths in twelve major metropolitan areas). As a result, sharing of this spectrum with high power PCS providers would be virtually impossible.

²The Commission has recognized the possibility that at least some PCS offerings will involve high power levels in order to position PCS as more comparable with current cellular service.

³See Ameritech's Comments on the PCS NPRM, GEN Docket No. 90-314, p. 8 and n.5.

⁴A number of parties filing comments discuss the serious problems spectrum sharing could create. See Comments of Personal Communications Network Services of New York, Inc., pp. 4-6; Comments of Apple Computer, Inc., pp. 5-7.

To minimize any potential problems of spectrum sharing, the Commission should adopt a relatively short transition period during which incumbent fixed microwave operators would be voluntarily relocated to other spectrum.⁵

Respectfully submitted,

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February 12, 1993

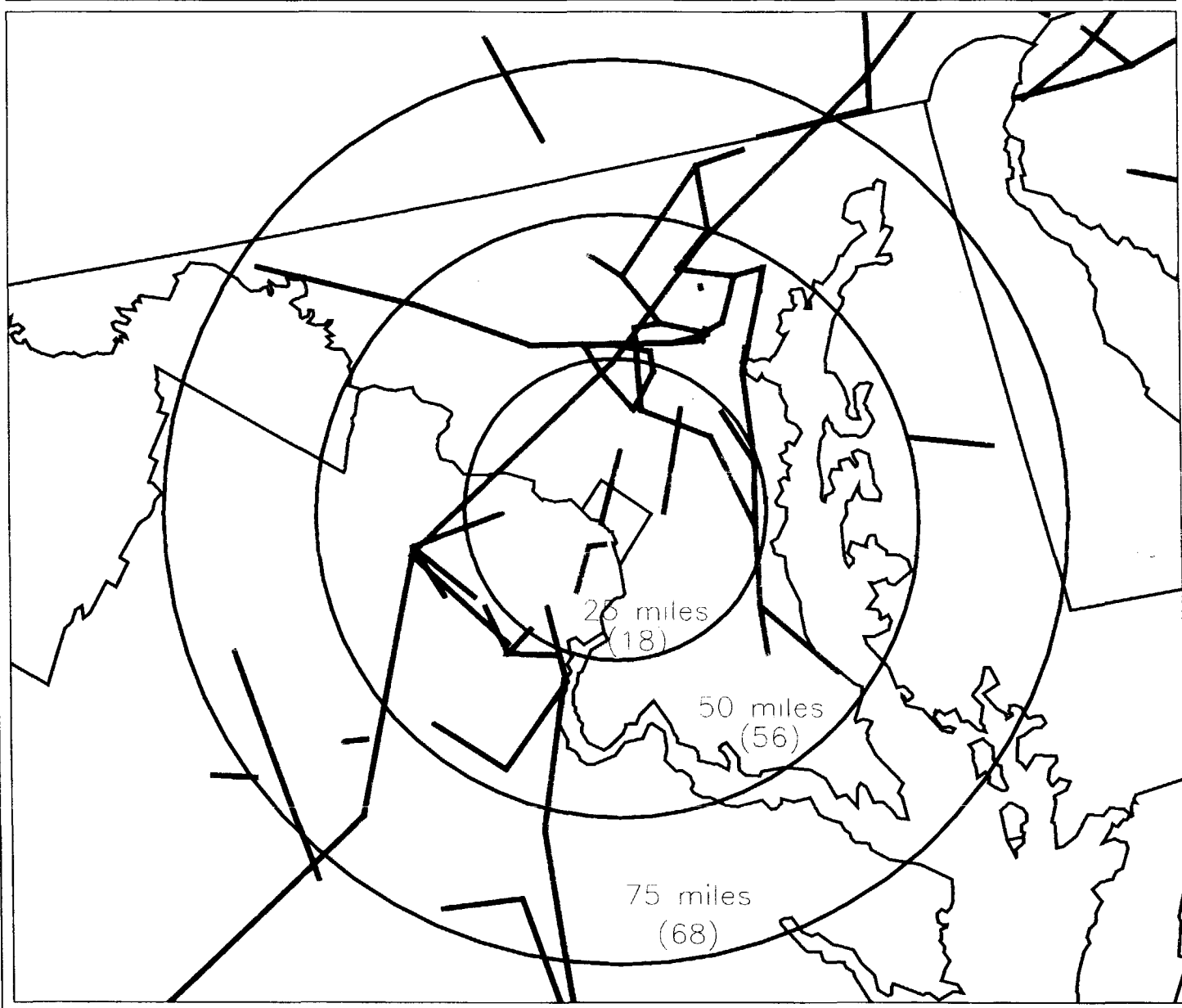
⁵In apparent recognition of the problems of spectrum sharing with high power PCS applications, a number of PCS providers propose two methods of alleviating the problem -- short transition periods and large spectrum allocations. If the Commission adopts short transition periods, grants of large spectrum are unnecessary. See, e.g., Comments of American Personal Communications, p. 4, n.9.

ATTACHMENT 1



DISTRIBUTION OF 1.9 GHz MICROWAVE PATHS

Geographic Area	Paths w/in 25 miles		Paths w/in 25-50 miles		Paths w/in 50-75 miles		Total # of Paths
Philadelphia	37	44%	26	31%	21	25%	84
New York City	22	33%	20	30%	24	36%	66
Chicago	29	45%	19	30%	16	25%	64
Seattle	16	43%	4	11%	17	46%	37
San Francisco	33	47%	25	36%	12	17%	70
Los Angeles	50	39%	38	30%	39	31%	127
San Diego	15	50%	5	17%	10	33%	30
Washington	18	26%	38	56%	12	18%	68
Miami	22	46%	12	25%	14	29%	48
Orlando	33	46%	10	14%	28	39%	71
Atlanta	36	50%	20	28%	16	22%	72
Boston	10	21%	23	49%	14	30%	47
Total	321	41%	240	31%	223	28%	784

1.9 GHz Microwave Paths within 75 miles of Washington



LEGEND:

-  States
-  Microwave paths

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1.9 GHz Microwave Paths within 75 miles of Chicago

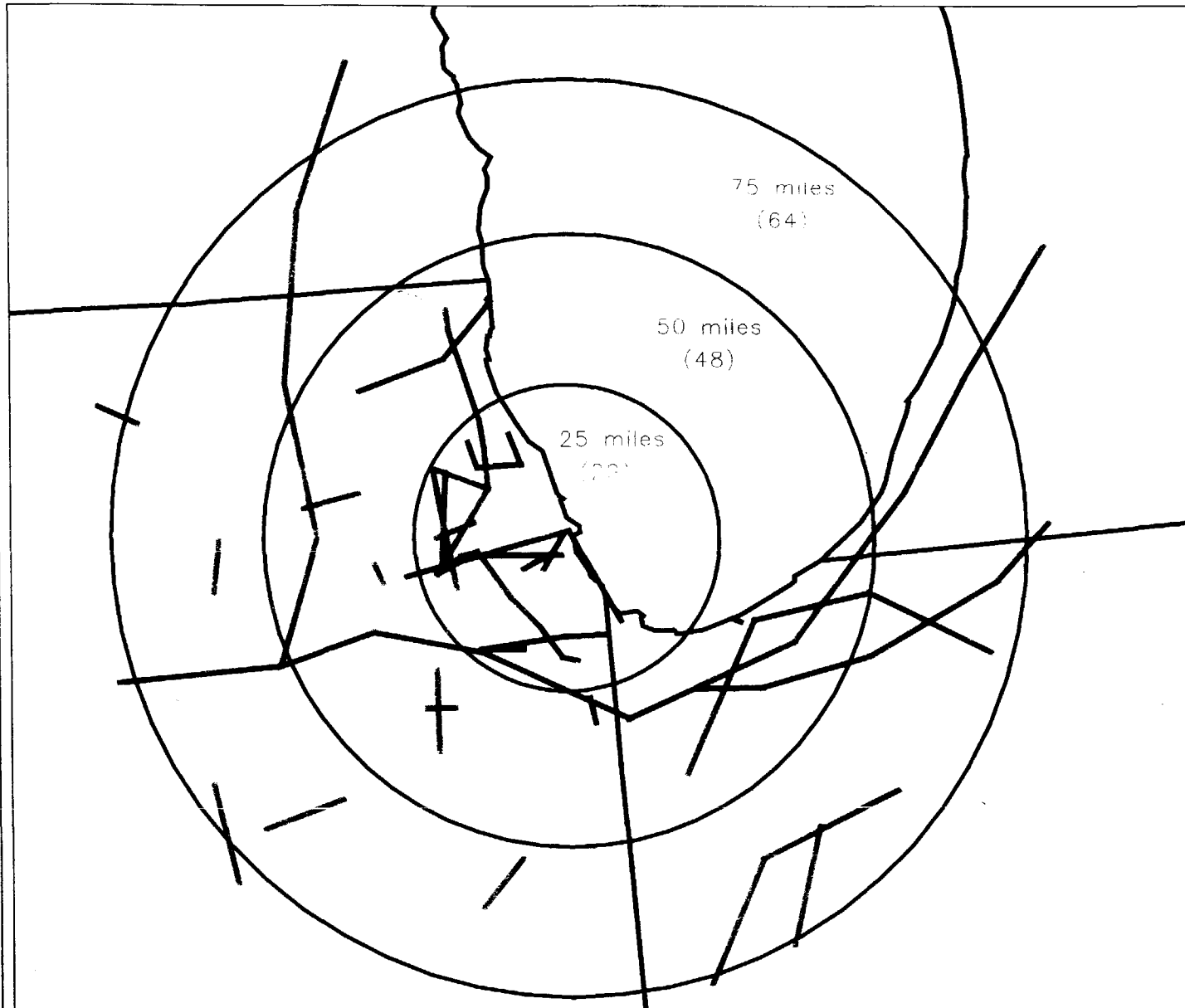
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States

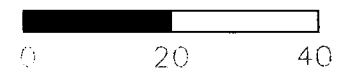


Microwave Paths

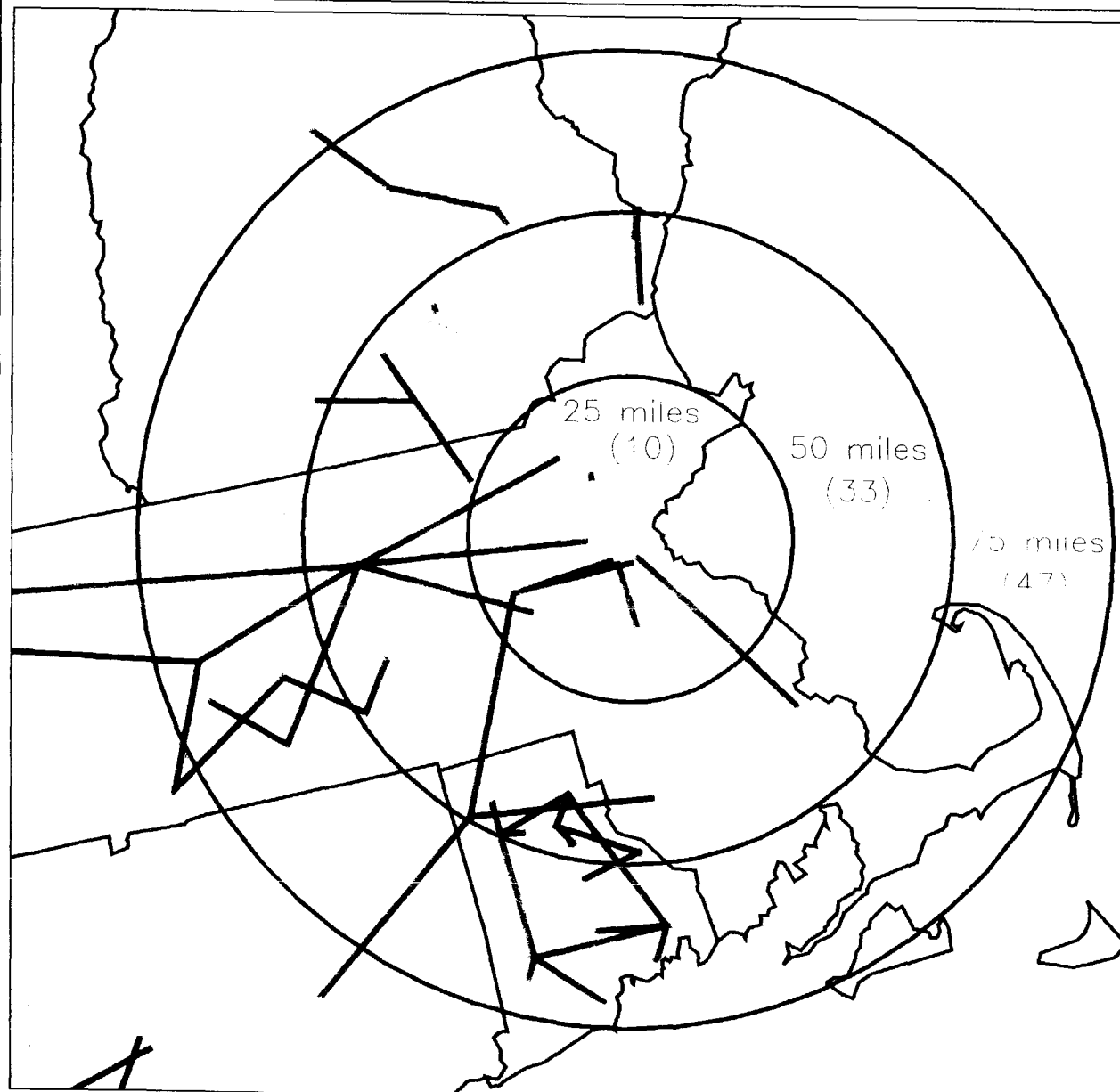


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1.9 GHz Microwave Paths within 75 miles of Boston



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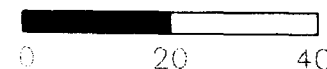
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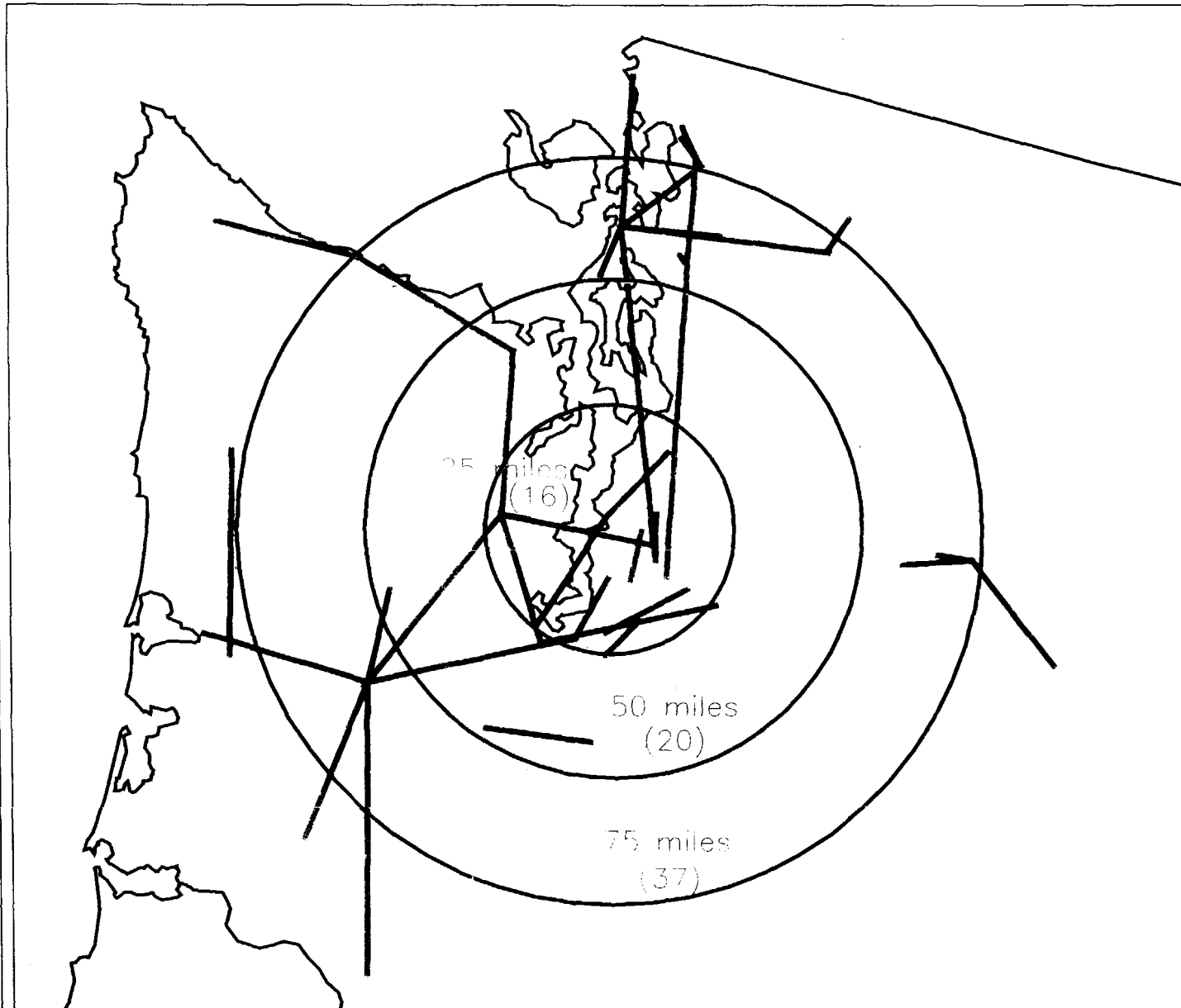
Microwave paths

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1.9 GHz Microwave Paths within 75 miles of Seattle



LEGEND:



States



Microwave paths

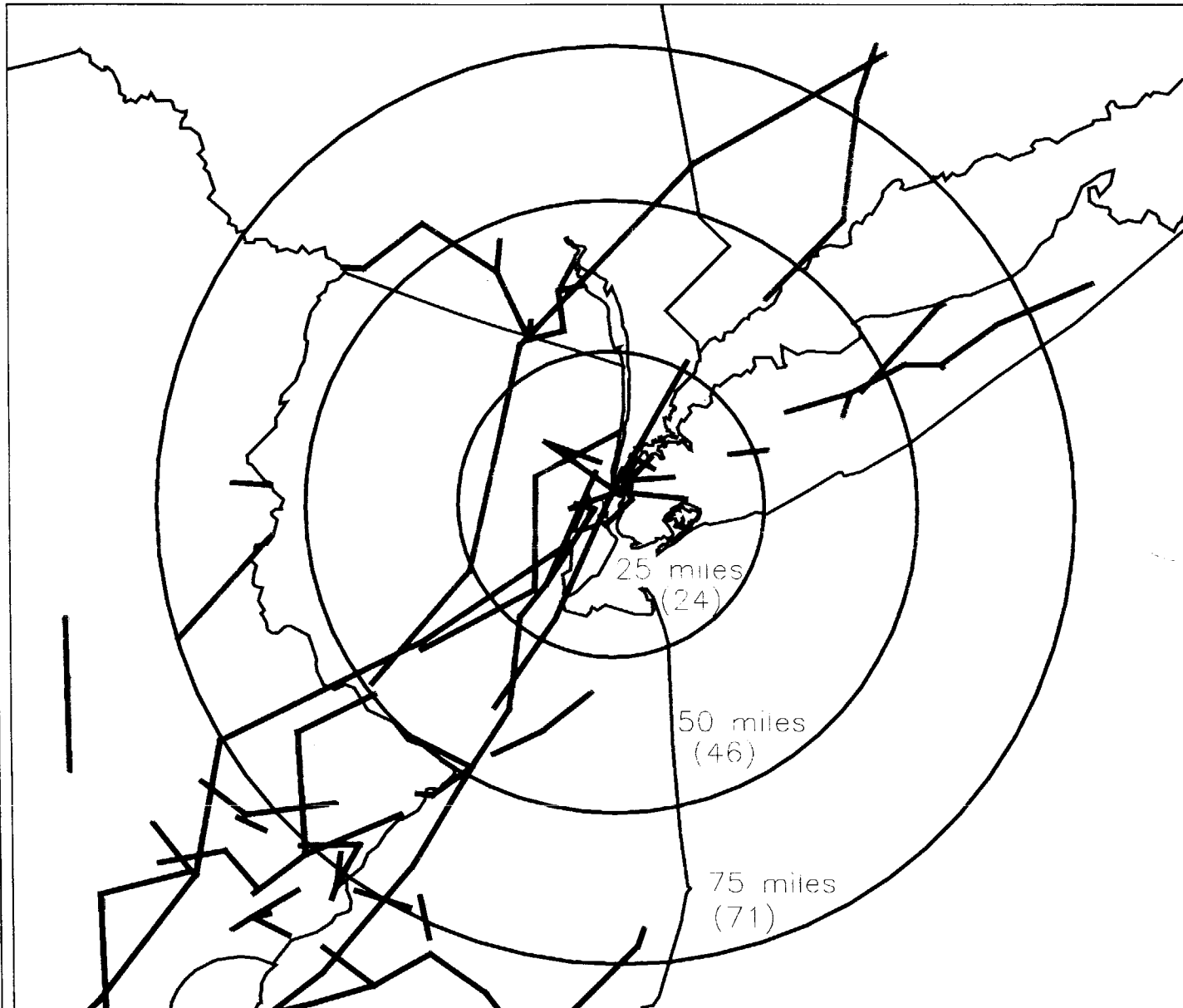
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1.9 GHz Microwave Paths within 75 miles of New York



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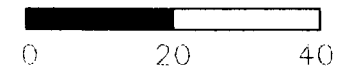
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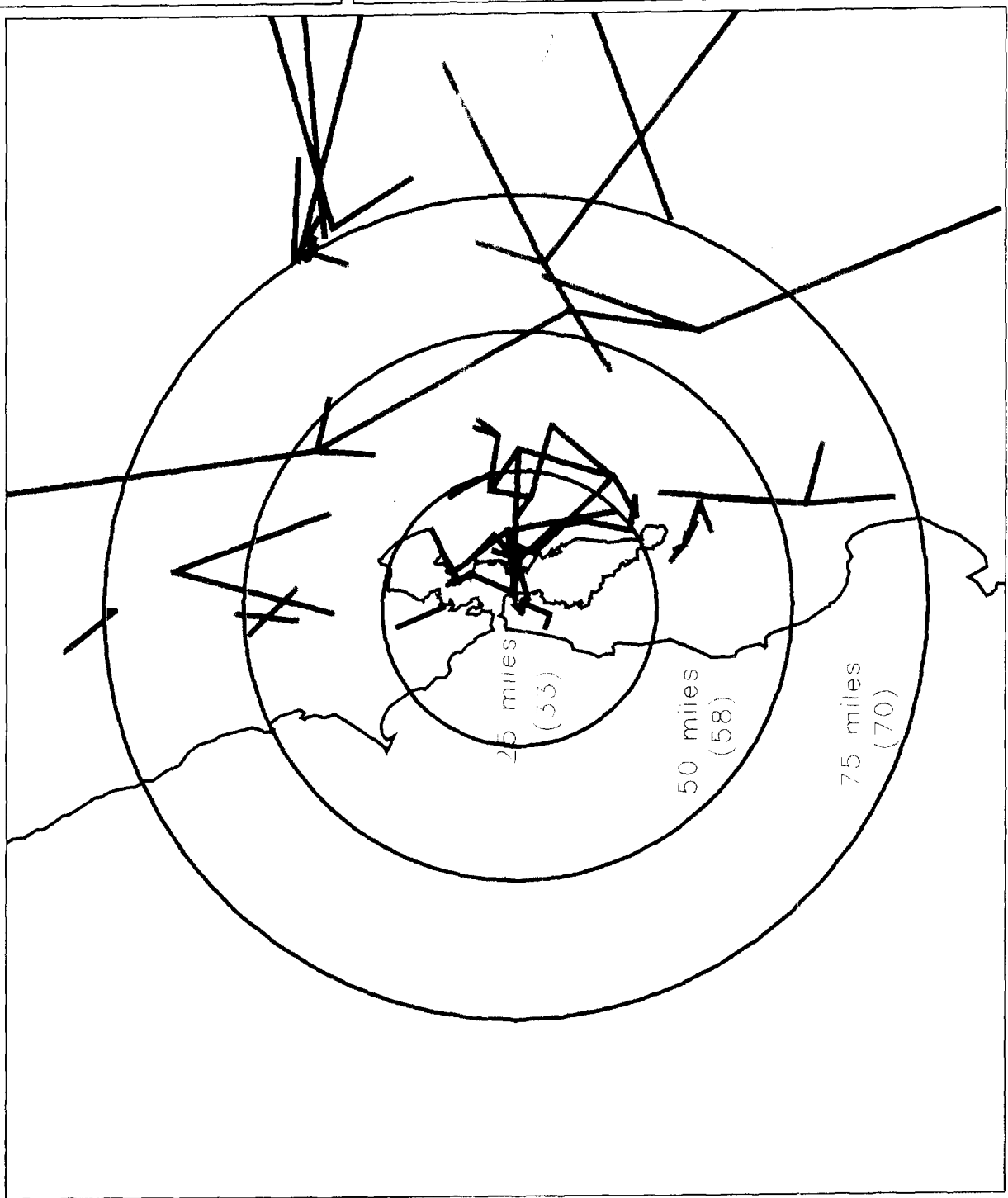
Microwave paths

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1.9 GHz Microwave Paths within 75 miles of San Francisco



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States



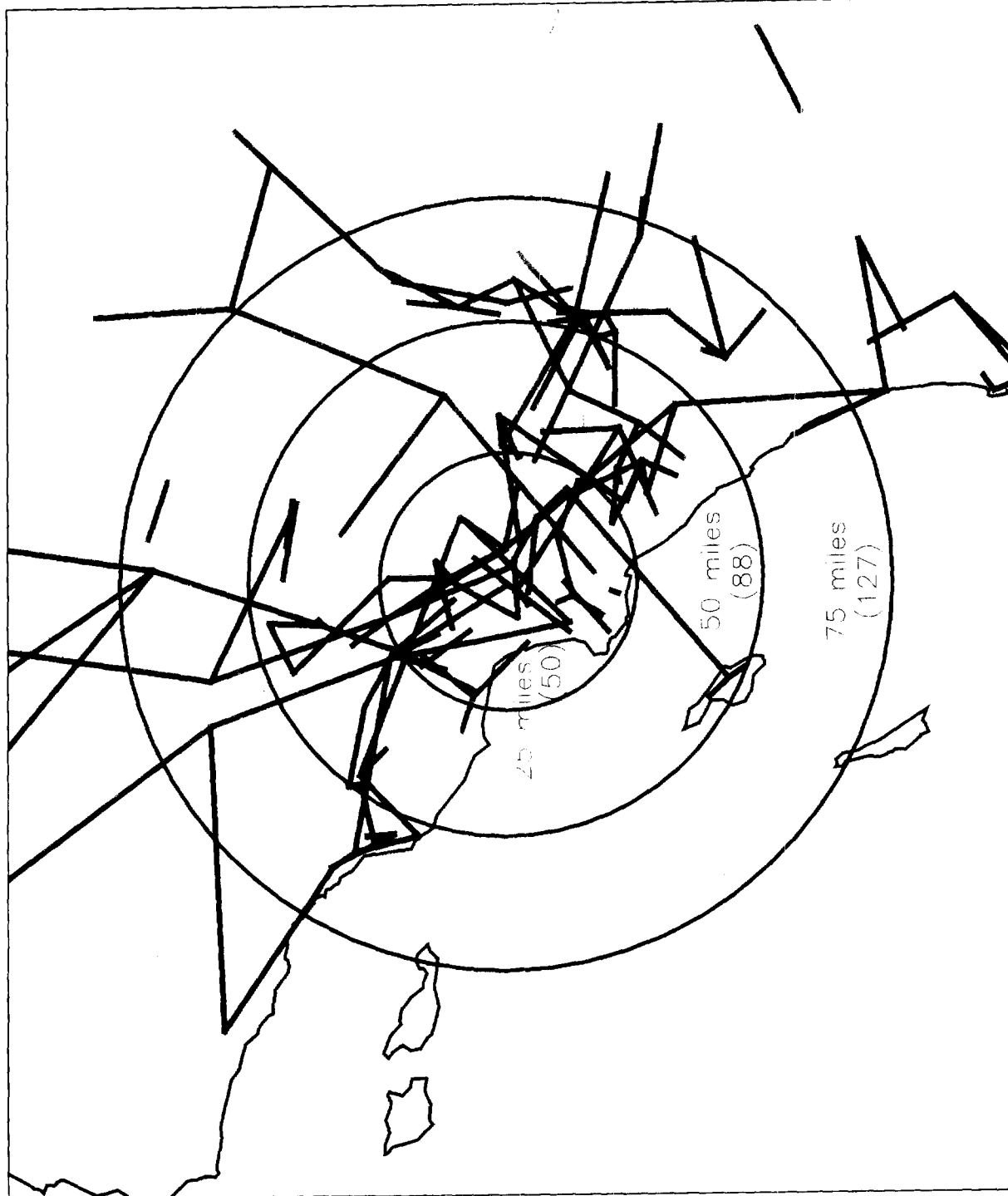
Microwave paths

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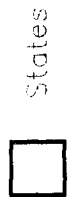
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1.9 GHz Microwave Paths within 75 miles of Los Angeles



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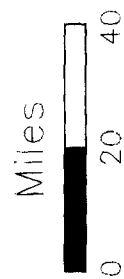


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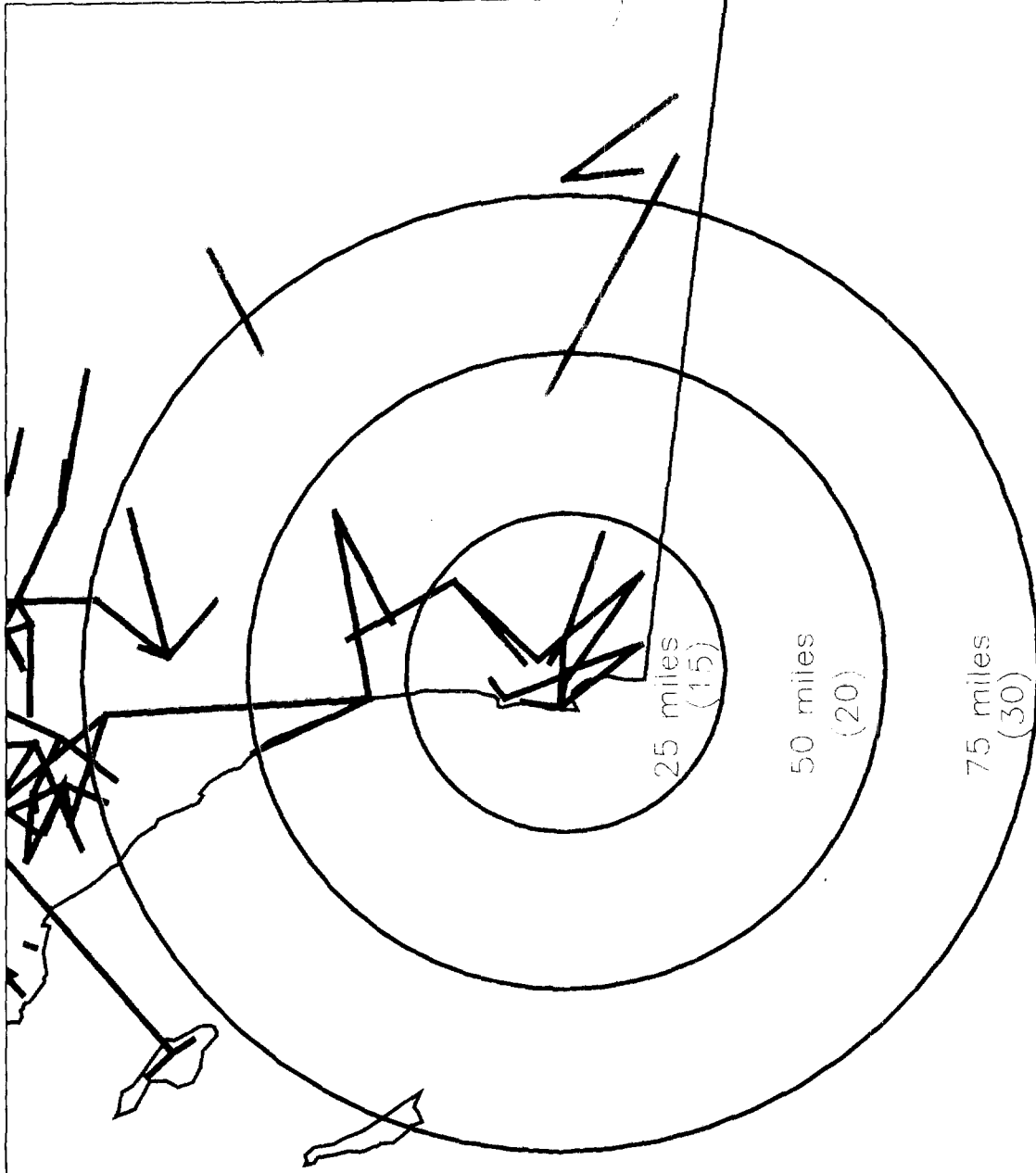


Microwave paths



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1.9 GHz Microwave Paths within 75 miles of San Diego



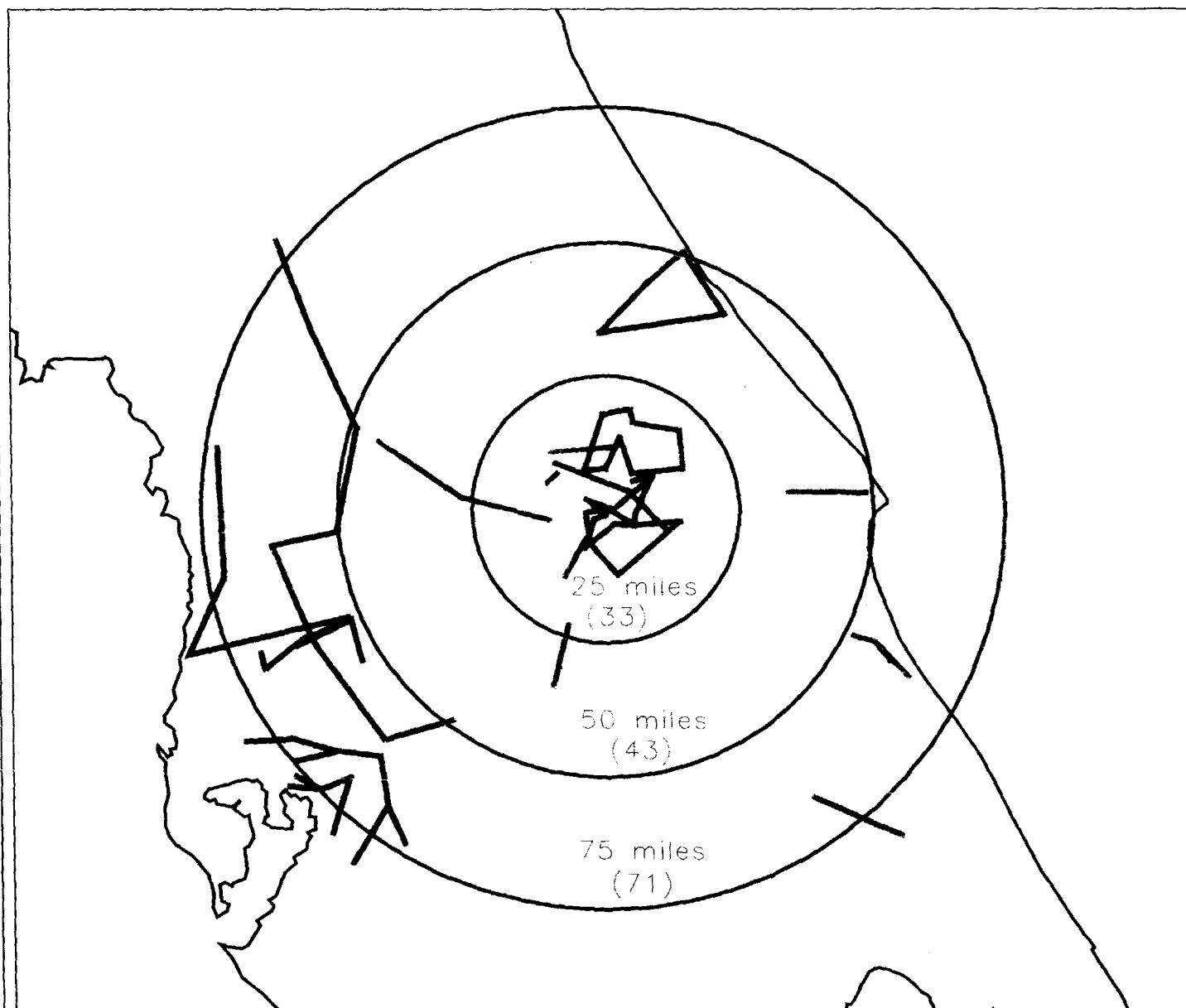
LEGEND:

-  States
-  Microwave paths

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1.9 GHz Microwave Paths within 75 miles of Orlando



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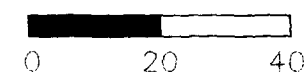
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Microwave paths

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1.9 GHz Microwave Paths within 75 miles of Miami

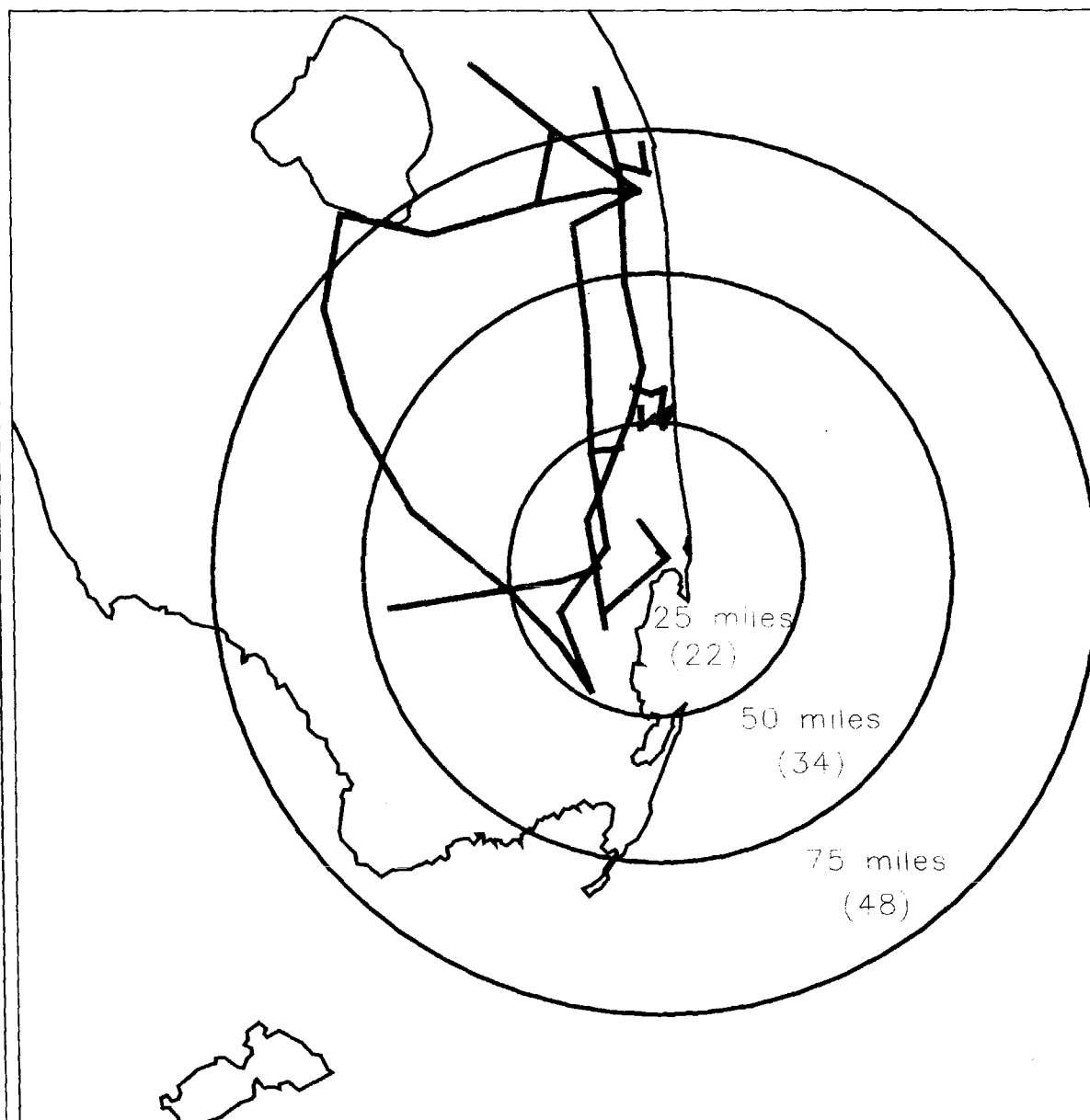
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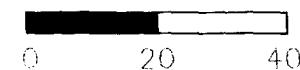


Microwave paths



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1.9 GHz Microwave Paths within 75 miles of Atlanta

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States

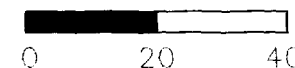


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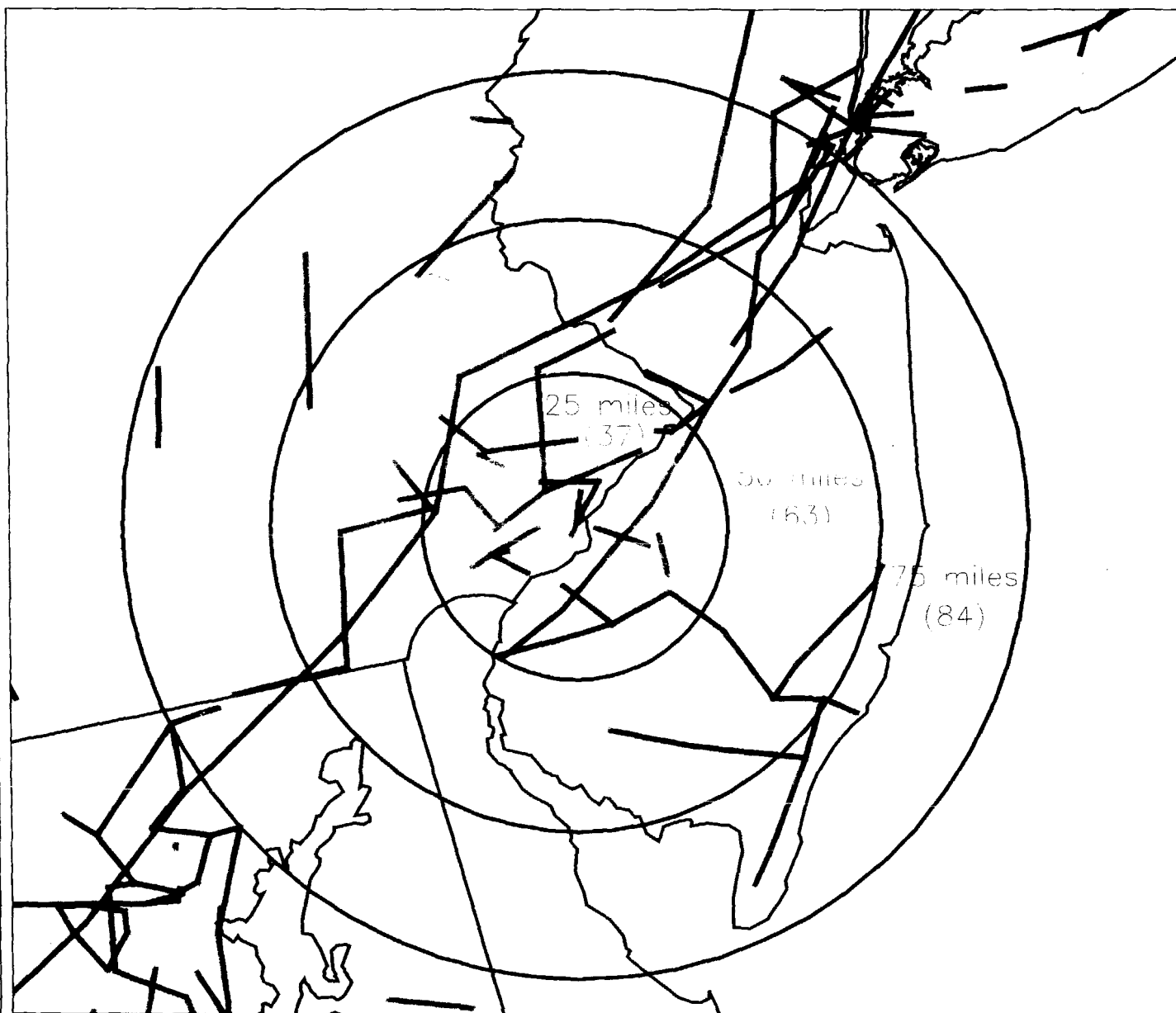


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1.9 GHz Microwave Paths within 75 miles of Philadelphia



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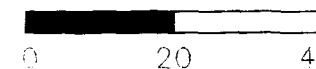
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Microwave paths

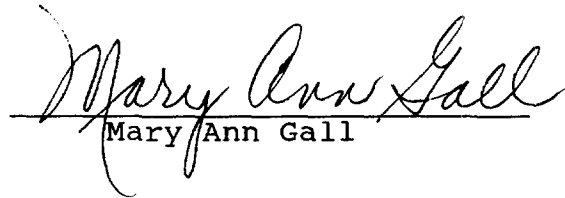
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CERTIFICATE OF SERVICE

I, Mary Ann Gall, hereby certify that copies of Ameritech Corporation's Reply Comments were sent on this, the 12th day of February 1993, by first class United States mail, postage prepaid, to those listed on the attached sheets.


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